Saskatchewan Exploration and Development Highlights 1998

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Surface mineral exploration expenditures are estimated at $41 million in 1998, a decrease of $2 million or 5 percent over the actual 1997 figure (Table 1). Grassroots uranium exploration remains stable and is still dwarfed by underground exploration and development at the Cigar Lake, McClean Lake, McArthur River, and West Dominique–Janine properties. The federal and provincial governments granted environmental assessment approval to the Cigar Lake and Midwest projects allowing them to proceed to the regulatory licensing approval phase. The Atomic Energy Control Board (AECB) has approved preliminary construction of the tailings management facility at McClean Lake and construction at the McArthur River uranium project is advancing rapidly. At Cluff Lake, operations will be suspended indefinitely as of December 31, 2000. Although base metal exploration expenditures are expected to drop by 30 percent, Hudson Bay Mining and Smelting Co. Ltd. will bring the Konuto Lake copper mine project into production. Provincial exploration expenditures on gold and diamonds remain low but stable.

Table 1 - Exploration expenditures.

	1997 (actual)	1998 (estimated)
Uranium	27 (269)	27 (298)
Gold	4	4
Base Metals	10	7 (28)
Diamonds	2	3
Total	43	41

Notes:
Figures are rounded to the nearest million dollars. Uranium and developing metal mine expenditures are in brackets.

URANIUM

Saskatchewan remains the focus of uranium activity in Canada. Although the average uranium spot price for the first eight months of 1998 fell to US$10.78/lb U_3O_8, from US$12.05/lb U_3O_8 in 1997, uranium exploration expenditures are expected to remain stable in 1998.

Cameco Corporation is the key player in uranium mining and exploration in Saskatchewan controlling over 60 percent of currently identified reserves following the corporation's acquisition of 100 percent of Uranerz Exploration and Mining Ltd. Cameco is owned 90.59 percent by public share holders and 9.41 percent by the Saskatchewan government.

Saskatchewan's mines produced 12 019 t U (31.2 million lb U_3O_8) in 1997, up six percent from 1996, continuing the province's position as the world's leading producer with 100 percent of Canadian and approximately 34 percent of world output. In 1997, sales amounted to 11 274 t U (29.3 million lb U_3O_8) valued at $557 million.

Reserve and production figures for the three operating production facilities are presented in Table 2. Currently identified reserves within the Athabasca Basin are sufficient to sustain production well into the next century. On the exploration side, a dozen companies make up current uranium exploration joint ventures. Exploration in all parts of the Athabasca Basin is aimed at the discovery of another major deposit of the Key Lake–Cigar Lake unconformity type. Although exploration is concentrated in the east and southeast, there are also important programs in the northwest and north of the Athabasca Basin.

Discovery potential still remains high. For example, in 1997, the Cameco-operated Dawn Lake venture intersected potentially significant unconformity-type mineralization in the Thorburn Lake area. Assays reached 2.7% U (3.2% U_3O_8) over 8.8 m in the best drill hole. Also, in 1998, DF Exploration Uranium Ltd. cut stringers of up to one percent pitchblende on their Stony Rapids property.

Rabbit Lake

Cameco Corporation, operator (100%).

The Rabbit Lake mill operated on a nine days up, five days down schedule for 1997. Mill production has steadily increased from 2865 t U (7.5 million lb U_3O_8) in 1994, to 4616 t U (12.0 million lb U_3O_8) in 1997. Rabbit Lake is forecast to produce 4616 t U (12.0 million lb U_3O_8) again in 1998.

Production in 1997 was from the Eagle Point deposits and the Collins Bay A-Zone deposit. Production in 1998 is planned from Eagle Point only, namely the 144- and 02-zones. A blend of ore from Eagle Point A-Zone and B-Zone is to supply mill feed for the year. Present published mineable reserves are sufficient to allow mining until the year 2002. It is anticipated that in 1998 additions to the reserves will come from the 01-Zone.

Underground exploration drilling for 1997 at Eagle Point outlined an additional 3630 t U (8.0 million lb U_3O_8) of mineable reserves in the lower 144-Zone, between the 260 and 400 m levels. Mine

development in 1998 is scheduled accordingly. Surface exploration consisted of various geophysical surveys on the Rabbit Lake site, concentrating along the Collins Bay fault between Eagle Point and the original Rabbit Lake pit. Additional surveys were conducted over the 02-Zone at Eagle Point. Surface drilling into the Island Zone, located to the southwest of the 144-Zone, did not identify additional reserves. Underground exploration drilling in 1998 will concentrate on: the lower 144-Zone below the 400 m level, the 01-Zone (located between the 144- and 02-zones); the upper levels of the 02/03-zones; and test three conductors located up to 500 m directly north of the 02-Zone.

Cluff Lake

COGEMA Resources Inc., operator (100%).

The company will suspend operations indefinitely at the Cluff Lake mine as of December 31, 2000. This decision was based on economic considerations. At the current market price for uranium, the Cluff Lake operation is only marginally economic. Furthermore, in the current economic climate, the mine does not have the reserves to support the investment needed to create a new tailings management facility which will be required after the year 2000.

The company will continue an aggressive exploration program to better assess the uranium potential of the Cluff Lake region. If the results of this are positive, and market conditions are favourable, COGEMA Resources will conduct a new engineering study of the mining of these resources including a long-term solution to the tailings management issue.

The company increased annual production from 1926 t U (5.0 million lb U_3O_8) in 1996 to 1964 t U (5.1 million lb U_3O_8) in 1997. The mill started continuous operation on October 3, 1995 and was running at full capacity at the end of 1997. The mill reverted to operating on a one-week-on and one-week-off basis in April 1998 because of insufficient mine production. Production in 1998 is expected to drop to approximately 1000 t U. With re-licensing for the years 1999 and 2000, operations at Cluff Lake

Table 2 – Published reserves from Saskatchewan uranium mines.

Owner(s)*	Property/Deposit	Reserves (t U) (Unstandardized)	Grade %U	Production (t U) 1997***	1998****
	RESERVES**				
Cameco Corporation	Rabbit Lake			4616	4616
	Collins Bay B	577	0.3	-	-
	Collins A	5 116	4.9	-	-
	Eagle Point	11 040	0.9	-	-
Cameco Corporation	Key Lake				
	Deilmann	9 400	1.1	5423	5385
Cameco Corporation–COGEMA Res.	McArthur River P2N	72 600	15.9	-	-
Cigar Lake Mining (Cameco Corporation–COGEMA Res.–Idemitsu–TEPCO-KEPCO)	Cigar Lake	136 000	11.5	-	-
COGEMA Res.	Cluff Lake	9 550	0.9	1964	1000
COGEMA Res.–Tenwest–OURD	McClean and SUE Trend	16 485	2.0	-	-
COGEMA Res.–Cameco Corporation–Tenwest–OURD	'Midwest'	13 760	3.7	-	-
	RESOURCES**				
Cameco Corporation	Eagle Point	4 040	0.9	-	-
Cameco Corporation–COGEMA Res.–PNC–KEPCO	Dawn Lake	8 600	1.4	-	-
Cameco Corporation–COGEMA Res.	McArthur River P2N	87 600	10.2	-	-

Notes:
* Operator first.
** "Reserves" and "Resources" are Cameco Corporation definitions. All figures in the table may not be exactly comparable.
*** 1997 production figures from the Cameco Corporation annual report in those cases where they control the deposit.
**** 1998 production estimated.

will continue at an annual production rate of 770 to 1155 t U (2 to 3 million lb U_3O_8) until the suspension of operations.

The Dominique-Peter and Dominique-Janine underground mines provided ore in 1998. All open pit mining ceased with the closure of the Dominique-Janine extension pit in mid-1997. Significant reserves remain in the West Dominique–Janine area where some high grade parts require a new mining method to extract them.

Production in 1998 in the Dominique-Peter (DP) mine is from the Southeast, Center, and North areas. Most of the mine's remaining reserves are at depth in the DP Center area. The mining method is still undercut and fill.

The Dominique-Janine underground mine, with an existing lowest level 210 m below surface, is accessed by decline and employs conventional mining methods (undercut and fill). Rock types, structural patterns, and grades are similar to the Dominique-Peter mine about 1 km to the northeast. In detail, however, the Dominique-Janine ore is more altered, tectonized and shows greater variations in thickness. The company extended the ramp from the 235 m level in the Dominique-Janine underground mine north-northwest to the 150 m level in the West Dominique-Janine in 1997. Subsequently, underground and surface drill programs have defined new reserves on this deposit where mineralization is between the 100 and 260 m levels below surface, is open at depth, and occurs over a surface strike length that exceeds 1000 m. Locally grades are higher than anything mined so far at Dominique-Peter and Dominique-Janine. The Cluff Lake shoreline pods, test mined by surface jet boring, are being rethought. The pods are probably a series of discrete veins rather than an unconformity uranium deposit of the classical type. Waste rock between the veins was harder than expected and reduced the overall grade. The area directly south of the West Dominique–Janine has good potential for finding "unconformity-type" mineralization in inverted thrust blocks of Athabasca Group sandstone.

Key Lake

Camceo Corporation, operator (100 %).

Although mining activity was completed in April 1997, Key Lake maintained its status as the largest uranium operation in the world with a total output of 5423 t U (14.1 million lb U_3O_8) in 1997. Production of 5385 t U (14 million lb U_3O_8) is planned for 1998. Ore for the mill comes from four stockpiles. The McArthur River project, located 80 km to the northeast of Key Lake, is scheduled to start supplying ore to the Key Lake mill in 1999, extending mill life a minimum of 15 years. In the interim, the mill will be upgraded to handle blended ore grading 3.4% U (4% U_3O_8).

The recently commissioned Deilmann pit tailings management facility (TMF) will hold the remaining Key Lake tailings and the tailings from McArthur River ore milled at Key. The corporation plans to convert the system, with appropriate government approvals, to one of subaqueous deposition.

Cigar Lake

Cigar Lake Mining Corporation: Cameco Resources Ltd. (48.75%); COGEMA Resources Inc. (36.375%); Idemitsu Uranium Exploration Canada (7.875%); TEPCO Resources Inc. (5.0%); and KEPCO Resources America Ltd. (2.0%).

In April 1998, the Saskatchewan and Canadian governments agreed that this uranium project could advance to the next stage of the regulatory approval process. The governments' decision follows a report submitted November 13, 1997 by a joint federal-provincial panel, which recommended the conditional approval of the project. Subject to the timely receipt of appropriate licenses from the regulators, production at Cigar Lake is expected to begin in 2001. Technical issues such as the placement of waste rock will be dealt with through the AECB and Saskatchewan Environment and Resource Management (SERM) licensing process.

The owners propose to develop the Cigar Lake deposit at a capital cost of $410 million. Since the initial test mining phase was completed in 1993, the project site had been operated on a care and maintenance basis until 1997 when a second phase of test mining commenced. After approval to construct is received from the regulatory agencies, Cameco will become the operator. Ore will be processed approximately 80 km away at the McClean Lake mill, operated by COGEMA Resources Inc., and Idemitsu Uranium Exploration Canada Ltd. will provide administrative services and monitor the activities of the mine and mill operators.

To accommodate Cigar Lake ore, the McClean Lake mill will be expanded from an annual production capacity of 2300 t U (6 million lb U_3O_8) to 9200 t U (24 million lb U_3O_8). Under the terms of the agreement, the Cigar Lake joint venture will produce up to 6900 t U (18 million lb U_3O_8) per year and the McClean Lake joint venture will produce 2300 t U (6 million lb U_3O_8). These milling arrangements offer several environmental advantages, including the shared use of a common tailings facility in the mined out JEB deposit pit and a simplified decommissioning and reclamation program.

Mining will be undertaken in two phases: Phase 1 starting in 2001 and lasting 11 years will deal with the rich eastern part of the ore body, while Phase 2 will remove the remainder. After a start-up period of two to three years, the mine will produce up to 6900 t U (18 million lb U_3O_8) annually during Phase 1. During Phase 2, annual production from the lower grade ore will drop to 2300 t U (6 million lb U_3O_8),

but will last a further 28 years, if no additional reserves are discovered. Reclamation and decommissioning will follow and will take up to five years.

Access to the underground workings is by the test mine No. 1 shaft. A second shaft will provide an alternative access, and will be the exhaust outlet for the primary ventilation system. Mine rock will be hoisted through the No. 1 shaft. The ore, in the form of a slurry, will be pumped to surface through specialized cased bore holes. A third shaft is planned for Phase 2. Drifts will be developed on two levels in basement rock beneath the ore body. The ore will be mined in panels from the upper production level using a jet boring, non-entry method within a frozen ore body. Freezing will improve ground conditions, prevent water inflow, and stop radon migration.

Under the existing test mine license, the company is testing a new mine development system and a prototype freeze hole drill. The mine development machine, with a 5.2 m diameter reaming head is being used to excavate cross cuts. The machine installs a circular concrete lining behind it which supports the ground.

Midwest Property

Midwest joint ventures: COGEMA Resources Inc. (56%); Cameco Corporation (20%); Tenwest Uranium Ltd. (19.5%); and OURD (Canada) Co. Ltd. (4.5%).

Although the Midwest mining project, as described in the 1991 EIS, failed to receive approval, COGEMA Resources Inc., as the new majority owner and joint venture operator, successfully identified ways to overcome the safety and environmental concerns identified during the first review process. Consequently, the federal-provincial panel recommended approval of this project too. Ore will be mined by a jet boring method, previously tested at Cigar Lake, and milled off-site at McClean Lake. The new approach addresses the radioactivity and water inflow concerns. Non-entry mining improves radiation protection because the high-grade ore is contained in pipes and tanks. Also, water inflow will be reduced dramatically by ground freezing. Mink Arm of McMahon Lake will not be drained, thus environmental impacts will be significantly reduced.

Assuming a start-up of the McClean Lake mill in early 1999, development at Midwest could start in 2000 and production in approximately 2003 when the open pit mining phase at McClean Lake ends. The Midwest mine will produce 2200 t U (5.7 million lb U_3O_8) per year for six years after which the underground operation at McClean Lake will be ready to take over.

McClean Lake

COGEMA Resources Inc. (70%); Tenwest Uranium Ltd. (22.5%); and OURD (Canada) Co. Ltd. (7.5%).

The AECB and SERM have approved construction of the tailings storage facility at the McClean Lake project. The project faces a final hurdle with the mill's operating license, expected from AECB and SERM in early 1999.

The JEB pit, 120 m in depth, is mined out and the ore stockpiled. The pit will be converted into a two stage natural surround the TMF facility. In the first phase, tailings will be discharged subaqueously in a slurry. Subsequently, in the second phase, tailings will be discharged subaqueously as a paste. The natural permeability of the pit walls will guide water round the impermeable tailings mass.

The initial phase of the TMF work will include construction of the filter and drain system at the bottom of the JEB pit and the mining of a horizontal drift and vertical raise through which water from the TMF will be pumped to surface for treatment. The company plans to complete all of this work by mid-November.

Since COGEMA Resources Inc. announced its decision to develop the $250 million McClean Lake project in March 1995, work was fast tracked and completed by the end of 1997. With the approval of the mill's operating license, the company expects to have the McClean Lake facility in production in the first half of 1999. Following the government approval of the Cigar and Midwest projects, a second phase of construction to expand the McClean Lake mill is planned to handle the increased production associated with these projects.

The SUE C open pit is being developed; stripping will reach the ore horizon by the end of this year. Open pit mining of the SUE C deposit will be followed by that of SUE A and SUE B which will be mined out by 2003. Subsequently, ore will derive from Midwest underground mine from 2003 to 2008 and the McClean underground mine from 2009 to 2011. Milling of both McClean and Midwest ores at the McClean Lake mill will provide for a total of 2300 t U (6 million lb U_3O_8) per year without considering Cigar Lake ore.

The SUE A, B, and C deposits are clustered on the western edge of the Archean Collins Bay "dome", within a 2.9 km long northerly trending zone. The SUE C deposit occurs in Wollaston Group basement rocks which flank the "dome", and in overlying Athabasca Group structures at depths of 70 to 180 m below surface. The SUE A and B deposits lie on and above the unconformity in the Athabasca Group sandstones. The deposits are located within a zone of faulting and alteration. In the SUE A and B deposits, uranium oxides and silicates are associated with Ni-Co arsenides and Fe-Ni-Co-Cu sulphides. The SUE

A and B deposits were discovered by drilling conductive zones delineated by ground VLF and HLEM (Max-Min) techniques. The SUE C deposit was identified by drilling DC resistivity and IP anomalies located 100 m away from the conductor axis.

McArthur River–P2 North

Cameco Corporation, operator (83.766%) and COGEMA Resources Inc. (16.234%).

Cameco is proceeding on schedule with construction of the McArthur River project. The corporation received government approval in May 1997 and AECB construction licenses by August 1997. Before production can begin in 1999, the project will require operating licenses from both the AECB and Saskatchewan provincial regulators.

The McArthur River deposit is the largest known high-grade uranium deposit in the world. The deposit has proven reserves of 72 600 t U (189 million lb U_3O_8) at an average grade of 15.9 percent U (18.7% U_3O_8) and a resource of 87 600 t U (227.8 million lb U_3O_8). In addition, the potential for expanding the total reserves beyond those already identified, is excellent because, to date, only 18 percent of the total length of the mineralized structures have been the subject of underground drilling.

Construction of the McArthur River site currently involves the building of surface facilities, excavation of Shaft #2, and underground mine development. The new 80 km highway to Key Lake is complete. Minor modifications to the Key Lake mill are required, along with the addition of a receiving plant for McArthur River ore. Post-1995 capital spending to bring the project into production is projected at $400 million.

The ventilation shaft will be complete to 530 m by the spring of 1999. Development on the 530 m level and especially the 640 m level is now extensive. The two primary, non-entry mining methods to be used are raisebore mining and boxhole boring. Raisebore mining is the preferred method although limited to areas where chambers can be developed above and below the ore zone. Variation in rock strength will require ground support utilizing rock bolts, steel mesh screen, and shotcrete. Grouting, and in some cases freezing of the ground in the vicinity of the ore, will be required to control ground water. Freezing of the ore before breaking it is also planned. The drilling of 80 freeze holes on the 530 m level was started in 1998 and will take about six months to complete. Initially a three sided rectangular curtain will be frozen around part of the ore body. This freezing process will take six months to complete and will result in a rectangular frozen block. Cameco will contain the ore in a crushing and grinding system on the 640 m level and pump it to surface as a slurry, then ship it to Key Lake as a thickened slurry. The Key Lake mill will increase production from 5385 t U (14 million lb U_3O_8) to 6924 t U per year (18 million lb U_3O_8) and use the existing Deilmann TMF. Production is expected to begin at McArthur River in late 1999 and continue for approximately 20 years.

GOLD

Claude Resources Inc.'s Seabee mine is the province's only gold producer. Cameco Corporation's Contact Lake gold mine, which produced 52,000 oz Au in 1997, and a total of 188,210 oz Au over its two and a half year life, closed this summer.

The principal 1997 exploration efforts were by Claude Resources Inc. at Laural Lake and Golden Band Resources Inc. in the Byers Fault area. Although there are clearly gold exploration opportunities in the province, less than 10 companies are active compared to over 60 in 1988. Table 3 summarizes past and present production and reserve figures.

La Ronge Domain

Contact Lake

Cameco Corporation, operator (100%).

During 1997, 292 722 t of ore were mined at an average mill head of 6 g/t (0.17 oz/ton) Au to produce 52,593 oz Au. Total Bakos reserves as of December 31, 1997 were 182 000 t grading 6.5 g/t (0.2 oz/ton) Au for a total of 38,000 oz Au. Lower than expected ore grades have resulted in reduced gold production and higher unit costs. Due to a lack of additional economic reserves, Contact Lake ceased operations in early June 1998.

Other La Ronge Domain Projects

Exploration activity in the La Ronge Domain has remained low along with the price of gold. In late 1997, Golden Band Resources Inc. drilled four holes totaling 274.4 m south of Tower Lake and near the head of the significant Phantom East and West gold-in-till dispersion trains. The holes were targeted on negative magnetic anomalies beneath the apex of the dispersion trains and thought to represent either structures and/or alteration zones hosting gold mineralization. Zones of structural disruption with intense hematization were intersected in each hole, but no significant gold mineralization was found. The source of both dispersion trains remains unknown.

The Memorial and Fortuna showings were also found in the summer of 1997 while following up the gold-in-till dispersion trains. Between late 1997 and the summer of 1998, Golden Band Resources Inc. drilled

10 holes totaling 865 m on the Memorial showing located on S-104816 approximately 2.5 km northwest of Tower Lake. Work in 1998 also included bulldozer stripping and sluicing. The Memorial showing is interpreted to be near the northeast-trending closure of an anticline and associated with iron formation in mafic volcanic flows and tuffaceous rocks intruded by granodiorite and felsic dykes. Gold mineralization is associated with biotitization, carbonatization, silicification, disseminated pyrrhotite, and quartz-carbonate veinlets. DDH.MM-4 cut 75 m grading 2.57 g/t

Table 3 - Published reserves from selected Saskatchewan gold properties.

Owner(s)*	Property	Reserves (t) or Production (oz or t)	Grade g/t	Grade oz/shrt ton
	MINED OR MINED TO DATE			
Cameco Corporation	Contact Lake Mine** Bakos Zone	188,210 oz 1 304 000	8.0	0.23
Cameco Corporation–Starrex–Uranerz Expl. Mining	Star Lake Mine 21+Rush zones**	76,947 oz 182 291	14.7	0.43
Cameco Corporation–Shore Gold	Jasper Mine**	82,697 oz 140 127	18.8	0.55
Claude Resources Inc.	Seabee	350,723 oz***		
Corona Corp.–Int. Mahogany Corp.	Jolu Mine Rod+Mallard**	203,751 oz**** 472 220	14.4	0.42
Golden Rule Res.	Komis	26,885 oz		
Greater Lenora Res. Corp.	Box	64,066 oz		
Pamon Gold Mines-O.G. Macdonald	Prince Albert	4,882 oz		
	RESERVES			
Claude Resources Inc.	Seabee Mine	907 200	10	0.29
Greater Lenora Res. Corp.	Box and Athona	12 070 000	1.9	0.055
Kristo Gold	Anglo-Rouyn Mine	1 180 000*****	0.55	0.016
Waddy Lake Resources	Komis+EP	687 300******	10.3	0.3
	RESOURCES			
Cameco Corporation–Golden Rule Res.	Corner Lake	181 500	13.0	0.38
Cameco Corporation–Uranerz Expl. Mining	Contact Lake Bakos zone	392 000	7.5	0.22
Cameco Corporation–Uranerz Expl. Mining	Pap SW	233 000	8.0	0.23
Claude Resources Inc.–Cameco Corporation–Husky Oil	Laural Lake	210 000	15	0.44
Golden Rule Res.	Niko	165 700	4.8	0.14
Golden Rule Res.– Complex Res.	Tower East	922 000	6.9	0.2
Radcliffe Res. Inc.	"North" Lake	2 360 000	2.4	0.07
Petro Plus Inc.	Twin	351 100	6.2	0.18
Tyler Res.–Golden Rule Res.–Cameco Corporation	Weedy B Golden Heart	314 000 687 000	4.8 10.3	0.14 0.3
Waddy Lake Res.	Komis+EP	573 300******	13.4	0.39

Notes:
* Operator first.
** Mined out. Reserves at start-up listed plus actual production oz Au.
*** September 30, 1998.
**** Additional 1,500 oz estimated recovered during clean up. Possibly additional ounces were also recovered in the test run.
***** Anglo-Rouyn mine tailings also contain 1.97 g/t (0.058 oz/ton) Ag, 0.15% Cu, and 4.5% magnetite.
****** 1995 Annual Report. Komis mine reserves before production started.

(0.07 oz/ton) Au which included a 22 m interval grading 5.99 g/t (0.18 oz/ton) Au. Also DDH.MM-7, drilled 50 m northeast of DDH.MM-4, intersected 3.31 g/t (0.1 oz/ton) Au over 61.9 m. Although the geometry of the Memorial mineralization is not well understood, the company's management thinks that results to date indicate potential for an open pitable bulk tonnage deposit.

Golden Band Resources also drilled six holes totaling 862.5 m on the newly discovered Fortuna showing, located immediately west of Tower Lake, and two new holes on the Halfmoon Lake showing, where previous drilling completed in early 1997 outlined sporadic gold mineralization within granodiorites of the Boundary Lake pluton.

Glennie Lake Domain

Seabee Mine

Claude Resources Inc., operator (100%).

Gold production in 1997 was a record 58,467 oz Au, a direct result of improved head grade and mill throughput. Subsequently, the mine produced 42,900 oz Au for the first nine months of 1998, slightly more than the 42,000 oz produced during the same period last year. Since start-up in December 1991 to September 30, 1998, 350,723 oz Au have been produced. Last year's mill throughput of 211 481 t was a nine percent increase over 1996 and represents an average of 580 tpd. For the first nine months of 1998, the mill has processed an average of 620 tpd at a grade of 8.63 g/t with a 92.9 percent recovery rate. The mine appears on track to meet its 60,000 oz Au target for 1998 produced at cash costs below US$185/oz. In February 1998, A.C.A. Howe International Ltd. placed total Seabee reserves at 907 200 t grading 10 g/t (0.29 oz/ton) Au with over 590 000 t of this figure in the proven and probable categories.

Mid-May the company was drifting on the 2C structure at the 110, 190, and 290 m levels on the adjacent Currie Rose property which is also owned 100 percent by Claude subject to a 30 percent net profit interest in favour of Currie Rose Resources. Over the next few months underground development will continue in preparation for mining the ore. Last year's DDH.S594, drilled on the boundary zone with this property, cut a true width of 13.4 m grading 24 g/t (0.7 oz/ton) Au. The 2C structure is open at strike and depth.

A first quarter 1998 drill program completed 7120 m in 45 holes on the Currie Rose property. Modest gold values were encountered sporadically along the 600 m of strike length tested. Considerably more follow-up drilling, particularly at depth, is required to better assess the extent of these structures.

Line cutting and geophysical surveys were performed in advance of a summer mapping program on the Santoy Lake property, located 8 km east of the Seabee mine. This geophysical work consisted of Mag/EM surveys plus gradient array induced polarization surveys over selected targets on a test case basis. These surveys were designed to generate geophysical anomalies coincident with known gold-bearing structures. Work programs in the Santoy Lake area are intended to increase Claude's working interest in the property from 50 to 76 percent as per an amendment to the joint venture agreement with Santoy Resources Ltd.

Western Craton

Box And Athona Mines

Greater Lenora Resources Corporation, operator (100%).

The corporation reviewed and revised the Goldfields Project's database further, a process which resulted in extra holes being available for use in the ore reserve calculation. Using the revised database for the Box mine only, the corporation asked Pearson, Hofman and Associates to make a geostatistical calculation of the total Box mine granite (BMG) and the resources within the pit outline as previously defined in the Simons feasibility study of mid-1995. Table 4 briefly highlights part of the study's published results. A new resources figure was not calculated at the Athona pit but management estimates it to be at least 150,000 oz Au.

Table 4 - Box deposit reserves (Pearson, Hofman and Associates 1998).

	Block Model Estimate No Cut-off			Block Model Estimate 0.5 g/t Au Cut-off		
Zones	Tonnes (millions)	Au (g/t)	Contained Au (oz)	Tonnes (millions)	Au (g/t)	Contained Au (oz)
Total BMG						
30 g/t Au high cut	27.0	1.28	1,112,000	15.5	2.09	1,039,000
Within Simons Pit to 250 m deep						
30 g/t Au high cut	21.8	1.41	987,000	13.3	2.18	931,000

Greater Lenora has also completed an Order of Magnitude Study using revised criteria and metallurgical leaching during 1998. This study has indicated that a substantial reduction in capital and operating costs are attainable. Using this model and a $US320 gold price, the financial analysis of the project shows a good pre-tax rate of return and a cash operating cost of approximately $US200/oz. Based on these favourable results, it was concluded that the project should be advanced to the next engineering stage and financing negotiations implemented.

Flin Flon Domain

Laural Lake Prospect

In addition to spending $2.5 million to earn a 35 percent working interest in the Amisk joint venture (Cameco Corporation and Husky Oil), Claude Resources can earn another 35 percent by spending a further $14.0 million or by bringing the Laural Lake property into commercial production. The option agreement covers 18 800 ha in the northern portion of Amisk Lake where Claude Resources Inc. also has a 100 percent interest in 1700 ha. The company believes that the area as a whole, which hosts numerous mesothermal and epithermal gold vein showings, is one of the major under-explored gold areas in Canada. Claude's work to date had concentrated on the Laural Lake deposit.

Summer field mapping in 1997 produced a revised model for the Laural Lake deposit which is hosted in the Laural Lake rhyolite dome. The deposit is characterized by a tightly folded auriferous sulphide stringer/vein system in its core with subordinate subparallel flanking stringer veins. Individual veins are enveloped by well-defined sericitic alteration haloes that mimic primary layering. Wall rock within the rhyolite complex, proximal to the stringers, contains pervasive mineralization. A preliminary resource estimate based on this interpretation totals 210 000 t grading 15 g/t (0.44 oz/ton) Au (uncut). Although this is a substantial reduction from previous estimates, the revised model is interpreted to have good potential for tonnage along strike. A first quarter program drilled 3815 m in 10 holes to test the Laural Lake property at depth. This work produced several encouraging intersections including 7.9 m grading 15.97 g/t (0.47 oz/ton) Au, 3.25 m grading 11.40 g/t (0.33 oz/ton) Au and 6.4 m grading 12.97 g/t (0.38 oz/ton) Au. Although the company views these results as encouraging, assessment of Laural Lake's real potential will depend on an underground bulk sample and mapping program.

Claude Resources Inc. also acquired the Tartan Lake gold mine near Flin Flon, Manitoba for US$1.8 million payable in Claude Resources treasury shares. The purchase is important to Claude because the Tartan Lake mill is within trucking distance of the Amisk/Laural Lake gold project and it has a permitted tailings pond.

This summer, crews prospected and mapped the west channel of Amisk Lake including the old Prince Albert–Monarch and Amisk Gold Syndicate mine sites. Two 60 m wide corridors of carbonate alteration with spotty gold mineralization in quartz veins were delineated. A ten hole, 1372 m follow-up drill program failed to intersect significant gold values near surface. Further work, principally drilling a deeper tier of holes, is necessary to more adequately assess the potential of this alteration system.

BASE METALS

Base metal production in Saskatchewan in 1998 came from the Saskatchewan side of the Callinan Deposit, and from the Konuto Lake Mine, near the town of Denare Beach (Table 5). The Konuto Lake Mine is under development, with full production expected by June 1999.

Base metal exploration activity in the province was down this year compared to previous years, in response to the low metal prices. Exploration programs continued in the Sub-Phanerozoic area and Glennie Domain for VMS deposits and in the Wollaston Domain for Sedex-type deposits. The Rottenstone Domain was the focus of a new program looking at Ni-Pt deposits.

Flin Flon Domain

Konuto Lake Project Mine

Hudson Bay Mining and Smelting Co., Limited, operator (100%).

In June 1998, the company announced the decision to proceed with the final phase of development of the Konuto Lake Mine. The Konuto Lake deposit is a VMS-type deposit hosted by a juvenile arc, volcanic belt, which contains several small high-grade copper deposits, such as the past producers (i.e. Birch, Flexar, and Coronation mines). The deposit trends northerly, dips and plunges steeply to the east, and has a strike length of 250 m. Mineralization occurs within two concordant sulfide lenses (No. 1 and No. 3 zones) that extend from near surface to 550 m below surface. The two lenses contain chalcopyrite, pyrrhotite, pyrite, minor arsenopyrite, and magnetite. The No. 1 zone contains the bulk of the mineralization. The two lenses are separated by a third chalcopyrite-pyrrhotite stringer zone (No. 2 zone). The three zones will be mined down to an anticipated bottom level of about 400 m. On January 1, 1998, geological resources for the deposit were estimated at 1.41 million tonnes grading 5.27% Cu, 1.44% Zn, 10.47 g/t Ag, and 2.1 g/t Au.

The final development phase of the project includes underground mine development, surface construction, and expansion of the Flin Flon

concentrator to process the mine production of 800 tpd. The underground ramp development has reached the 240 m level. The No. 1 and No. 2 lenses were undercut on the 140 m level starting in April, and at the end of September, 19 868 t of ore grading 1.68 g/t Au, 9.22 g/t Ag, 3.66% Cu, and 1.21% Zn were produced. Undercutting of the No. 1, No. 2, and No. 3 lenses on the 240 m level is expected to produce another 20 500 t by year end. Production in 1999 is expected to reach 203 000 t. Once full production is achieved in June 1999, the mine is expected to operate for five to six years. The total construction and development costs for the mine are estimated at $37.8 million.

Callinan Mine

Hudson Bay Mining and Smelting Co., Limited, operator (100% subject to 6.67% NPI with Callinan Mines Ltd.)

Since start-up in April 1990 to December 31 1997, the Callinan Mine has produced 3 515 153 t of ore grading 3.57% Zn, 1.42% Cu, 23.31 g/t Ag, and 2.06 g/t Au, of which 26 463 t graded 4.17% Zn, 1.77% Cu, 22.9 g/t Ag, and 1.89 g/t Au came from the Saskatchewan side of the deposit. Of the three east-plunging zones (i.e. South, East, and North) of the Callinan deposit, only the upper part of the North Zone, with geological resources of 505 843 t grading 4.2% Zn, 1.7% Cu, 22.80 g/t Ag, and 2.0 g/t Au, extends into Saskatchewan. Most of the 1998 production has come from the East Zone and North Zone of the deposit in Manitoba, with the Saskatchewan side of the North Zone contributing, during the first nine months of the year, 29 157 t of ore grading 3.00% Zn, 1.60% Cu, 20.54 g/t Ag, and 1.54 g/t Au. An additional 10 000 t is scheduled to be mined during the last quarter of 1998.

Limited base metal exploration was done in 1998 in the Flin Flon Greenstone Belt. Hudson Bay Exploration and Development (HBED) conducted ground magnetic, horizontal loop EM, and surface pulse EM surveys near Mari Lake. Aur Resources Inc. drilled two holes for a total length of 562 m on their Mystic Lake property. The two holes were designed to intercept time-domain electromagnetic conductors, coincident with SPECTREM anomalies and metal-enriched till samples, but the holes did not intercept significant mineralization. Aur Resources Ltd. also completed a field mapping program and a

Table 5 - Published reserves from Saskatchewan base metal properties.

Owner(s)* Venture Operator	Property	Reserves and Resources (tonnes)	Grade % Cu	Zn	Pb	Ni	Co	g/t Au	Ag
	MINEABLE RESOURCES								
Foran Mining	McIlvenna Bay	27 225 000	0.90	3.27	-	-	-	0.34	16.43
Hudson Bay Mining	Callinan Sask. portion**	505 843	1.70	4.20	-	-	-	2.00	22.80
Hudson Bay Mining	Konuto Lake	1 410 000	5.27	1.44	-	-	-	2.10	10.47
	GEOLOGICAL RESOURCES								
Leader Mining International Inc.	Knife (Mokoman) Lake	79 000 000	0.69	-	-	-	0.017	0.16	3.00
Claude Resources	Elizabeth Lake	4 985 938	0.73	-	-	-	-	-	-
Boart–Longyear	Brabant/PEG Deposit	4 860 000	0.57	5.19	0.28	-	-	0.20	22.60
Hudson Bay Expl.	FON Zone	4 650 307	-	4.60	-	-	-	-	-
Cons. Pine Channel	Axis Lake	3 402 000	0.60	-	-	0.60	0.15	-	-
Petro Plus Inc.	George Lake	2 630 880	-	3.67	0.53	-	-	-	-
Aur Resources	Schotts Lake	1 983 850	0.61	1.35	-	-	-	-	-
Ducommun, Margaret	Gochager Lake	1 542 240	0.74	-	-	0.74	-	-	-
Aur–Cameco Corporation	Bigstone Lake	1 451 000 308 000	2.90 -	- 11.20	- -	- -	- -	- -	- -
Shane Resources	Brownell Lake	1 251 900	0.56	1.75	-	-	-	-	-
Cons. Pine Channel	Currie Lake	47 536	-	-	-	0.79	-	-	-

Note:
* Operator first.
** Geological Resources.

ground magnetic survey on their Wildnest Lake property.

Sub-Phanerozoic Area

HBED was the only major company in 1998 actively exploring for base metals under the Phanerozoic cover rocks. The company conducted ground magnetic and electromagnetic surveys in the Leblond-Archibald lakes area, the Saskoba–South Amisk lakes area, and in the Suggi-Windy lakes area. Geophysical targets were subsequently tested by eight drill holes for a total length of 1600 m in the Saskoba–South Amisk lakes area, and by 21 drill holes for a total length of 5400 m in the Suggi-Windy lakes area.

In April 1998, Foran Mining Corporation announced their purchase of the McIlvenna Bay copper-zinc deposit, near Hanson Lake, from Cameco Corporation and Billiton Metals Canada Ltd. Three million dollars were paid on closing, and an additional $7 million must be paid within the next three years in conjunction with the completion of a feasibility study. During the summer, the company did a reassessment of previous work, and released an upward revised resource figure of 27 225 000 t at 3.27% Zn, 0.90% Cu, 0.01 oz/t Au, and 0.48 oz/t Ag. An exploration and definition drilling program is planned for this fall.

Glennie Domain (including the Scimitar Complex)

Knife Lake Deposit

Leader Mining International Inc. continued their evaluation of the Knife Lake deposit in the Scimitar Complex. The Knife Lake deposit is a remobilized volcanogenic deposit hosted by upper amphibolite facies volcanic rocks of the Scimitar Complex. Mineralization, comprising disseminated to semi-massive pyrrhotite, pyrite, chalcopyrite, and minor sphalerite, is associated with injected metamorphic melts, which parallel gently, east-dipping gneissic foliation and lithological contacts. The deposit is shallow (less than 100 m), and has a strike length of over 4000 m. Drilling indicates a geological resource of 79 million tonnes grading 0.69% Cu, 0.017% Co, 0.16 g/t Au, and 3.00 g/t Ag.

Exploration work in the Knife Lake area in 1998 included a regional time domain electromagnetic survey, a ground magnetic survey, and a 35 drill hole program (5159 m) designed to evaluate deep electromagnetic conductors under Knife Lake. Drill holes testing the southern extension of the deposit intercepted a silver-rich zone 1 km south of Knife Lake. The silver-rich zone has been traced over 500 m along a 5 km long, east-trending, chloritic late fault, which crosscuts the upper amphibolite volcanic rocks. The zone yielded drill assay values of 320 g/t Ag over a 3 m interval, with a total weighted average of 49.07 g/t Ag over 71 m. A total of 1570 geochemical soil samples were taken, and parallel faults were mapped in detail during the past summer, to further evaluate the mineral potential of these late structures.

Leader Mining conducted a geophysical survey in the 'Linda-McCullum Lake' area, located 35 km northwest of the Knife Lake deposit, as a follow-up to last year's trenching results at the Linda-McCullum prospect. Chip sampling, along a trench excavated during the fall of 1997, produced assay values of 1.23% Cu, 2.36% Zn, 11.03 g/t Ag, and 0.122 g/t Au over 32 m. Time domain electromagnetic and magnetic surveys, undertaken during winter 1998, identified two main anomalies (Linda Main and Linda North), which were subsequently tested with a 24 hole drilling program (5136 m). Two drill holes designed to evaluate the Linda Main anomaly intercepted a felsic volcanic sequence, which appears to be at least 300 m thick and contains 0.51% Cu, 2.12% Zn, and 16 g/t Ag over 0.54 m (LDH98-1), 6.26% Zn and 3.9 g/t Ag over 0.52 m (LDH 98-1), and 0.22% Cu, 0.5% Zn, and 2.2 g/t Ag over 3.42 m (LDH98-2).

Brownell Lake Property

Shane Resources Ltd. completed a 914 m winter drilling program on the Brownell Lake property, first discovered by Canadian Nickel Company Limited in 1958. Six holes were drilled over a length of 975 m on a conductor, which is 3048 m long. The mineralized zones contain VMS-style alteration. Mineralization occurs as disseminations, stringer zones, and massive zones of pyrite, pyrrhotite, sphalerite, and chalcopyrite, hosted by metavolcanics and intercalated metasediments. The footwall rocks are altered to garnet, sericite, chlorite, and magnetite. All six drill holes intercepted mineralization. The first drilled is the best mineralized hole with a 2.2 m interval of 6.00% Zn and 0.21% Cu, and 11.1 m interval of 2.85% Zn and 0.48% Cu. In early June, the property was optioned to Terramin Resources, who became the operator of the project.

Wollaston Domain

Exploration for Sedex-style Pb-Zn mineralization continued in the Compulsion River area in the Wollaston Domain. Far West Mining Ltd. completed a Max-Min electromagnetic survey over a large electromagnetic conductor located up-ice of a geochemical Pb-Zn till anomaly that measures 7 km in length and is up to 500 m wide. Three drill holes totaling 570 m were drilled to test the conductor. The most interesting values are from the first and third holes, which returned assay values of 1000 to 2536 ppm Zn over 34 m, and 3206 ppm Zn over 8 m, respectively. The absence of significant Pb concentrations suggests that the source of the Pb-Zn till anomaly must be located farther up-ice of the conductor.

Rottenstone Domain

Uravan Minerals Inc initiated a new Ni-Pt exploration program in the Rottenstone Domain. The company staked 35 741 ha along strike of the closed Rottenstone Mine, a past producer of Ni-Cu-Pt. An airborne high-resolution magnetic survey and VLF electromagnetic survey were flown over 518 km² of the area.

DIAMONDS

The amount of land under disposition for diamond exploration was approximately 600 000 ha on October 1, 1998, close to a 100 percent increase from the same date last year but still low compared to the 4 million hectares under disposition at the height of the diamond boom in 1994. Sixty-three percent of this total consists of new claims staked during the period October 1, 1997 to October 1, 1998, of which 45 percent was staked by Pure Gold Minerals Inc. and CaribGold Resources Inc. in the Wood Mountain area of southern Saskatchewan.

Exploration expenditures are expected to increase by 33 percent from $2 million in 1997 to $3 million in 1998. Most of this money will be spent in an area running across the province between latitudes 53° and 55° which includes: Fort à la Corne (FALC); the Pasquia Hills; the Molanosa Arch; and Candle, Sturgeon, Smoothstone, and Wapawekka lakes.

Candle Lake Project

Kennecott Canada Exploration Inc., the operator, can acquire a 60 percent interest in the Candle Lake project from War Eagle Mining company and Great Western Gold by incurring $8 million in exploration and development expenditures of which $2.5 million had been spent by January 1998. Kennecott collected a 25 t bulk sample from kimberlite #29/30 in the first quarter of 1998 using a 31 cm diameter reverse circulation drill. The bulk sample was retrieved from two 1997 holes which were drilled and cased to the top of the kimberlite. Diavik's pilot plant in Yellowknife will recover the diamonds from the sample but no results have been released to date.

One hole retrieved diamondiferous kimberlite from the thickest part of the body with the other hole located 245 m away. Kennecott estimates that kimberlite #29/30 may contain 70 million tonnes. DDH.CL.95-01, drilled in the northwest part of kimberlite #29/30, close to one of the bulk sample holes, recovered a total of 46 micro and macro diamonds per 100 kg, which is among the highest counts reported from Saskatchewan. Proton microprobe analyses of pyropes and chromites from this kimberlite show that it has sampled deep Archean lithosphere and is therefore highly prospective for diamonds.

Fort à la Corne Joint Venture

The FALC diamond project is a joint venture between Cameco Corporation, Monopros Limited, and Kensington Resources Limited. As of October 31, 1998, Cameco has a 40 percent interest; Monopros and Kensington have 30 percent interests. Exploration is focused on 71 magnetically-defined kimberlite bodies, which together form one of the largest kimberlite fields in the world. Geophysical modeling of the bodies has shown their areas to range from 2.7 to 184 ha, with estimated tonnages of 3 to 675 million tonnes. The kimberlite bodies are relatively unique in that they are dominantly composed of pyroclastic crater-facies rocks.

The 1997 exploration program consisted of two conventional rotary drill holes as well as three reverse circulation airblast drill holes, which were underreamed (RCA/UR), totaling 1153.7 m. A small diameter (130 mm) rotary hole was drilled into each of previously untested kimberlite targets 605 and 612. The large diameter (430 to 460 mm) RCA/UR drill holes were completed to further evaluate kimberlite bodies 150,176, and 220 where encouraging diamond results were obtained from previous holes. Kimberlite material was processed for microdiamonds at the Saskatchewan Research Council (SRC) and Kimberley Acid Laboratories (KAL). The corresponding minibulk samples were processed and evaluated at the De Beers macrodiamond recovery facilities in South Africa. Macrodiamond valuations were made by Dr. Luc Rombouts of Terraconsult at Antwerp, Belgium.

Kimberlite, for microdiamond recoveries, was collected over an interval of 158.5 m in drill hole 150-05. These samples were composited for several intervals collectively covering the entire kimberlite intersection and totaled 82 kg. Sixteen microdiamonds, with a cumulative weight of 0.00163 carats, were recovered from this mass. Interval samples, composited from a kimberlite intersection of 170.5 m from drill hole 176-02, amounted to 77.4 kg. Twenty-two microdiamonds were recovered with a combined weight of 0.00198 carats. Drill hole 220-02 produced 159 microdiamonds collectively weighing 0.03957 carats from interval samples totaling 78.4 kg that were composited from 78 m of kimberlite.

A total of 72.9 dry t of the greater than 0.85 mm kimberlite fraction, representing a 129.9 t theoretical mass excavated from these drill holes was processed for macrodiamond content. No macrodiamonds were recovered from the minibulk samples obtained from kimberlite bodies 605 and 612. Twenty stones were recovered from minibulk samples totaling 27.53 t collected from an 84.0 m thick interval of kimberlite in body 220. These stones account for 1.27 carats of the total and includes a single 0.7 carat white macrodiamond with abundant inclusions. Minibulk samples from drill hole 150-05 totaled 59.70 t theoretical mass from a 159.5 m interval of kimberlite. Three macrodiamonds were recovered

with a cumulative weight of 0.475 carats. A total of 162.5 m of kimberlite was sampled from drill hole 176-02 yielding a theoretical mass of 42.67 t. Eight macrodiamonds collectively weighing 0.775 carats were recovered from the drill hole. The weighted average grade (by interval sample mass) for drill holes 150-05, 176-02, and 220-02 was 0.8, 3.1, and 4.6 carats per hundred tonnes (cpht), respectively. Incorporation of these results with historical data suggest preliminary weighted average grades of 4.9, 3.4, and 6.6 cpht for bodies 150, 176, and 220 respectively. These macrodiamond grades are low in comparison to forecasted commercial stone grades based on statistical extrapolation of microdiamond size distributions; kimberlite 150 has a forecasted grade of 11 cpht, body 176 has a grade of 36 cpht, and body 220 has a grade of 25 cpht. The joint venture considers forecasted grades to be useful for a qualitative comparison of relative diamond potential at Fort à la Corne, but not indicative of absolute grades due, in part, to the limited number of stones (200-300) utilized in the statistical computation. Furthermore, the presence of a single large stone weighing 0.138 carats from drill hole 176-01 biases the forecast for body 176.

Dr. Luc Rombouts valued 31 macrodiamonds recovered from the minibulk samples collected in 1997 and incorporated these values into the historical dataset for all the macrodiamonds recovered at the FALC project which was also updated to the end of 1997. Values for the 1997 stones are up to US$150 per carat with the best gem recovered from kimberlite body 150. The global average value for all macrodiamonds recovered at the FALC project is US$32 per carat based on 720 stones weighing a total of 37.3 carats and using end of 1997 prices. Very few inferences can be drawn from an appraisal of the available FALC valuation data due to the very small sizes of the diamond parcels studied. For reliable average carat values from individual bodies, sample sizes in the thousands of carats would normally be required. Gem stones comprise 95.3 percent of the total stone value recovered to date. Fourteen kimberlite bodies have yielded more than 15 stones each. Average carat prices for the individual kimberlite bodies vary from US$3 to US$89 per carat assuming end of 1997 prices. The highest average carat price of US$89 was obtained for kimberlite body 150 and is based on 36 stones.

In Dr. Rombout's opinion, it is reasonable to expect that the average carat price for many of the Fort à la Corne kimberlites could be in the US$50 to US$100 range, particularly since his statistical studies of the microdiamond analytical data indicate that several kimberlite bodies could have the potential to contain larger and better quality stones than those generally recovered from the minibulk samples to date. The entire inventory of macrodiamonds recovered at the FALC project, including the 1997 stones, comprises 68.8 percent gems, 20.5 percent near gems, and 1.7 percent industrial grade stones.

The Fort à la Corne kimberlite bodies have been evaluated for their relative diamond potential with the best 10 bodies prioritized for further work which will focus primarily on obtaining more minibulk samples.

Fort à la Corne–Shore Gold Inc.

Shore Gold Inc. announced the results from the fall 1997 drill program on its 100 percent owned FALC property at the south end of the kimberlite trend. Two large diameter (85 mm) core holes were drilled in the large kimberlite body, located on the western side of the property, close to previous company hole 96-3. The program was designed to gain additional knowledge of the kimberlite's geology and obtain a larger sample size. Three tonnes of samples were shipped to the SRC laboratory in Saskatoon. Kimberlite made up approximately 1.2 t of the total sample, with Cretaceous sedimentary rock the remainder.

Drilling intersected four distinct kimberlite zones in each hole. The two most significant zones are a 45 m thick, highly diamondiferous kimberlite "flow" near the top of the rock sequence, and 50 m below it; a 4 m thick zone also returning a good diamond count.

The core samples were processed using caustic fusion to recover both micro and macrodiamonds. Table 6 summarizes the results. This work yielded the largest diamond recovered to date measuring 2 mm in one dimension. The Main Zone accounted for 94 percent of total diamonds (702 stones from 818 kg) and 97 percent of the macrodiamonds (65 stones). Ninety-one percent of the stones are clear with no inclusions; 89 percent are clear and white. Two percent of the clear stones exhibit some color including clear yellow. Eighty-one percent of the diamonds exhibit good crystal structure; eleven percent are multiple crystals and aggregates. Only eight percent are fragments.

At present the Main Zone appears the most likely to be mined, averaging 9.9 diamonds/10 kg in drill hole 97-3A with the count from both 1997 holes averaging 8.6 diamonds/10 kg. The macro to micro ratio in the Main Zone is 0.1. Geophysics indicate the kimberlite intersected by Shore's drill holes 97-3A and B measures approximately 2.0 km by 1.5 km and has been drill tested so far to measure at least 1.5 km by 0.6 km.

Due to these extremely positive results, Shore Gold is planning a further two year, two-phase work program consisting of definition drilling with small and large diameter core which will culminate in an underground bulk sample. Underground access will be accomplished by driving a short decline into the kimberlite from the bottom of one of the deep ravines on the property. Shore currently has a 100 percent working interest in over 21 000 ha in the Fort à la Corne area and the right to earn 51 percent in an additional 34 000 ha.

Table 6 - Shore Gold Inc. results of caustic fusion analysis from two 1997 large diameter holes at Fort à la Corne.

Drill Hole	Interval (m)	Weight (kg)	Number of Diamonds <0.5 mm	>0.5 mm	Total
Zone 1					
97-3A	2.1	23.0	3		3
97-3B (included with sediment)					
Subtotal		**23.0**	**3**		**3**
Zone 2 (Main Zone)					
97-3A	45.3	400.7	360	36	396
97-3B	40.2	417.1	277	29	306
Subtotal		**817.8**	**637**	**65**	**702**
Zone 3					
97-3A	0.6	8.8	1		1
97-3B	1.1	11.2	1	1	2
Subtotal		**20.0**	**2**	**1**	**3**
Zone 4					
97-3A	3.7	50.4	17		17
97-3B	4.9	71.4	23	1	24
Subtotal		**121.8**	**40**	**1**	**41**
Totals		**982.6**	**682**	**67**	**749**

Wood Mountain

Pure Gold Minerals Inc. and CaribGold Resources Inc. have staked about 267 000 ha in the Wood Mountain area of the province, south of Swift Current and east of Shaunavon, to cover large concentrations of kimberlite indicator minerals including pyrope garnets. The indicator minerals occur in the matrix of Wood Mountain Formation gravels and locally derived tills. Clasts of quartzite and chert predominate in both the gravels and tills.

During May 1998, Pure Gold field checked a total of 205 magnetic anomalies that looked like kimberlite signatures. Of these, six are non-cultural features that merit further detailed follow up. Analyses of six large till samples confirmed high diamond indicator mineral counts from or near the same sites as reported earlier by the SRC. Indicator minerals recovered from three of the six samples were microprobed and their results interpreted. Although preliminary results are discouraging, the samples come from a very small part of the large indicator mineral dispersion train trending more or less easterly and much more follow-up work will be required to fully evaluate the diamond potential of this area.

Narrow Hills Area

Full Time Management Inc. of Las Vegas Nevada, is a new player in northern Saskatchewan. The company has applied for claims totaling 65 500 ha on both sides of the Narrow Hills Provincial Park east of Whiteswan Lake.

SILICA SAND

Daren Resources Ltd. is developing a project to quarry silica sand in the Hanson Lake area of Saskatchewan. Silica sand is widely used in the oil and gas industry as a frac sand for well completions. The Hanson Lake sands are high in purity (99%+ pure silica), which also allows them to be sold into the ultra high-purity markets. Early in the year, the company removed a 2 ton bulk sample of silica sand to test the quality of the sands. A 80,000 ton pilot operation is planned for the coming winter to determine the feasibility of the project.

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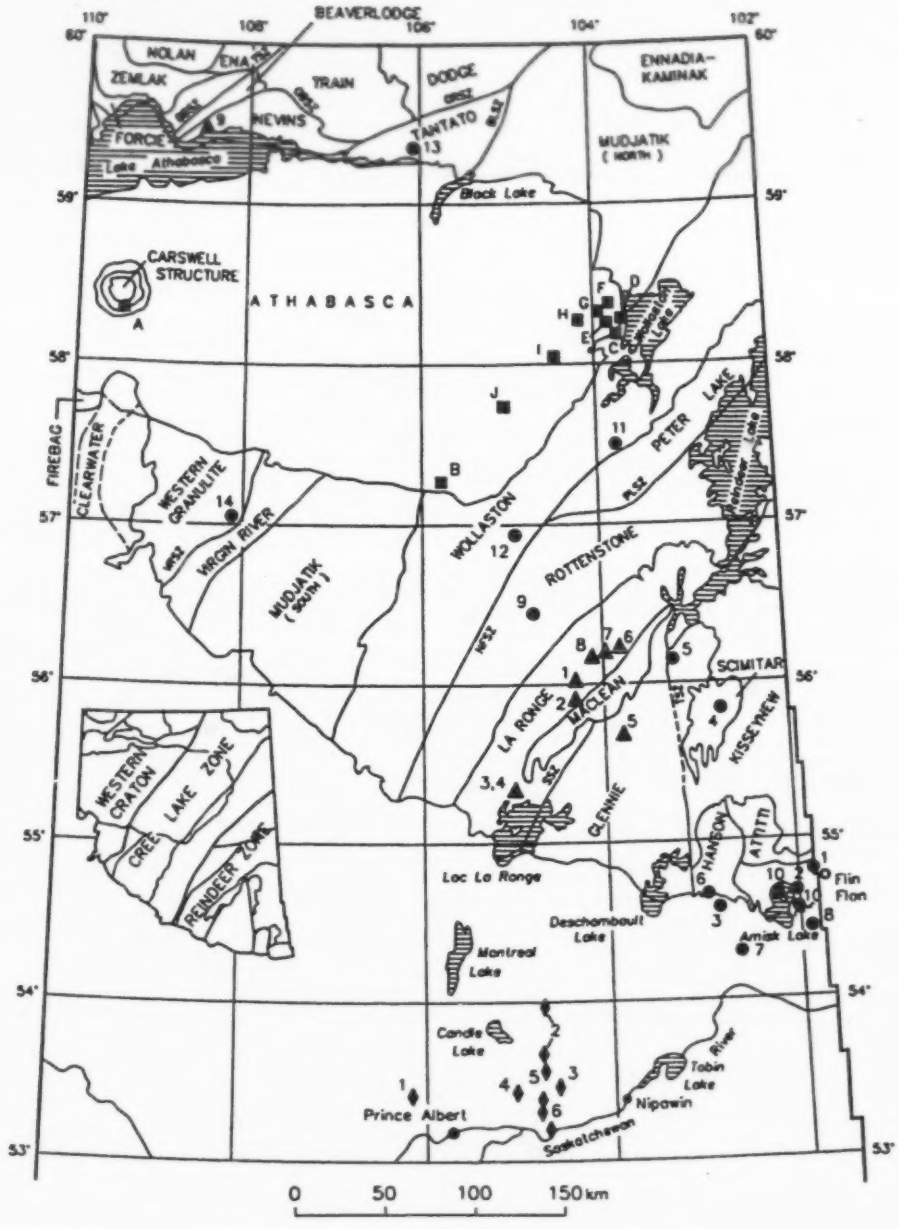

MINERAL DEPOSITS AND EXPLORATION AREAS

Uranium *(squares): (A) Cluff Lake, (B) Key Lake, (C) Rabbit Lake, (D) Collins Bay–Eagle Point, (E) McClean Lake, Sue Trend, (F) Jeb, (G) Dawn Lake, (H) Midwest, (I) Cigar Lake, and (J) McArthur River, P2 North.*
Gold *(triangles): (1) Jolu and Star Lake mines, (2) Jasper mine, (3) Contact Lake mine, (4) Tansi showing, (5) Seabee mine, (6) Golden Heart deposit, (7) Komis mine, (8) Tower East deposit and Memorial showing (9) Box and Athona mines, and (10) Laural Lake deposit and Prince Albert–Monarch mine.*
Base Metals *(circles): (1) Flin Flon and Callinan mines, (2) Konuto Lake, (3) McIlvenna Bay deposit, (4) Knife Lake deposit, (5) Linda/SPL prospects, (6) Western Nuclear mine, (7) Suggi-Windy Lake, (8) Saskoba–South Amisk lakes, (9) Rottenstone mine, (10) Mystic Lake, (11) George and Spence lakes, (12) Janice Lake, (13) Currie-Axis Lake, and (14) Clearwater Anorthosite.*
Kimberlites *(diamonds): (1) Sturgeon Lake, (2) Candle Lake, (3) Snowden, (4) Foxford, (5) Jacquine Lake, and (6) Fort à la Corne.*

SASKATCHEWAN MINERAL PROPERTIES AVAILABLE FOR OPTION AND/OR JOINT VENTURE

Rare Earth Elements and Specialty Metals Properties

Name	Disposition Number	NTS Block & Domain	Commodity	Tonnage (t)	Grade	Assays	Mineralization Type	Contact
Hoidas Lake	S-104263 S-104987 S-106089	74O-13 Western Craton	Rare earth elements			Composite grab sample of deposit 6.25% Ce; 0.08%Ga 3.29% Nd; 1.89% Nd 0.59% Pr; 0.17% Sm	Pegmatite rare earth deposit	Daren Resources Malcolm Gent (604) 684-0755
Viking Lake	S-104262	74N-9 Western Craton	Specialty metals, U			Grab sample 13% U 13.5% Nb 3-4% Ta 0.75% Pb	Pegmatite specialty metals deposit	Daren Resources Malcolm Gent (604) 684-0755
Matthews Lake	S-105271	74O-5 Western Craton	Rare earth elements			Grab sample 0.1 to 15.6% rare earth oxides	Monazite in quartzite metasedimentary horizon	Daren Resources Malcolm Gent (604) 684-0755
Alces Lake	S-105267	74N-9 Western Craton	Rare earth elements			Grab sample Up to 16% rare earths	Pegmatite rare earth deposit	Daren Resources Malcolm Gent (604) 684-0755

Gold and Silver Properties

Name	Disposition Number	NTS Block & Domain	Commodity	Tonnage (t)	Grade	Assays	Mineralization Type	Contact
Nirdac Creek	CBS 7761	64M-13 La Ronge	Au			Drill hole: 0.401 oz/t Au over 1.5 m 0.27 oz/t Au over 2.5 m Bulk sample 350 m up-ice from drilling: 11.97 oz/t	Iron formation hosted gold	Highrock Contracting Rod Spooner (306) 425-2828
Upises Lake	S-106151	73P-7 La Ronge	Au			Grab sample 6 oz/t Au Historical assay of 0.2 to 11.0 oz/t Au	Shear-hosted quartz vein	Highrock Contracting Rod Spooner (306) 425-2828
Upises-Teneycke Lakes	CBS 5284	73P-7 La Ronge	Au - Cu			Grab sample 170 g/t Au	shear-hosted quartz vein	Highrock Contracting Rod Spooner (306) 425-2828
Dickens Lake Greywacke	CBS 8911 CBS 6930 S-101079 S-99911 S-101254 S-101476 S-101817 S-101818	73P-15 MacLean	Au	297 710	9.2 g/t	12.7 g/t Au over 0.5 m 32 g/t Au over 7.5 m	Disseminated gold in clastic metasedimentary rocks	Cameco Corporation Dave Thomas (306) 956-6345
Dianne Lake	S-104978	74N-10 Western Craton	Ag - Cu - Ni - Co			Grab sample High-grade Ag Ni 12,603 ppm Cu 3,819 ppm Co 3,445 ppm	Polymetallic high-grade silver carbonate veins	Norac Exploration Ltd. Rod Dubnick (306) 425-3214
Phantom Lake Property	CBS 3194	63K-12 Flin Flon	Au			Chip sample 93.0 g/t Au over 3.0 m	Shear-hosted quartz veining	Ray-Dor Resources Richard Murray (204) 687-4905
Rosie Showings	S-104730	64D-10 La Ronge	Au - Cu			Grab sample 1.7% Cu 25 g/t Au	Stringer Cu in metamorphosed alteration zone	Highrock Contracting Rod Spooner (306) 425-2828
Wildnest Property	CBS 3245	63M-1 Kisseynew	Au - Zn - Pb	660 000	3.5 g/t Au		Silicified shear zone in gneiss	Ray-Dor Resources Richard Murray (204) 687-4905
Amisk Lake	S-99730	63L-9 Flin Flon	Au			Soil anomaly >1000 ppb Au	Shear zone with pyrite, arsenopyrite & native Au	Angell's Resources Ltd. Gerry Angell (306) 362-2112
Wedge Lake	S-105628 S-105629	64D-4 La Ronge	Au	600 000	0.15 oz/ton Au	Drill hole 0.415 oz/ton Au over 26.6 m & 0.288 oz/ton Au over 5.4 m	Stratabound gold mineralization and cross-cutting gold mineralized quartz veins	Petro Plus Inc. Randy Studer (306) 425-3350

Uranium Properties

Name	Disposition Number	NTS Block & Domain	Commodity	Tonnage (t)	Grade	Assays	Mineralization Type	Contact
Duddridge Lake	S-106070 S-106071	73O-9 Wollaston	U - Cu	357 310	2.11 lbs/ton	9.8% U3O8	Sandstone-hosted uranium mineralization	Larry Sostad (604) 990-5327
Key Lake area	S-106110	74H-7 Athabasca Basin	U			Airborne EM conductor Boulders with up to 3% U	Unconformity-type uranium mineralization	Service Management Carl Service (306) 373-6052
Rabbit Lake area	S-106113 S-106114	64L-4 and -5 Wollaston	U			Geophysical EM conductors	Unconformity-type uranium mineralization	Service Management Carl Service (306) 373-6052
Wollaston Lake area	S-106109 (Michael) S-106111 (Monica) S-106112 (Rubber Duck)	64E-13 64L-4 74E-1 74H-16 Athabasca Basin	U			EM conductors & cross cutting faults; airborne U anomaly	Unconformity-type uranium mineralization	Service Management Carl Service (306) 373-6052

Nickel Properties

Name	Disposition Number	NTS Block & Domain	Commodity	Tonnage (t)	Grade	Assays	Mineralization Type	Contact
Axis Lake	S-103569	74P-5 Tantato	Ni - Cu - Co	3 402 000	0.6% Ni 0.6% Cu 0.15% Co		Differentiated mafic (norite) intrusion	Consolidated Pine Channel Gold Corp. Dale Hoffman (604) 684-5118
Currie Lake	S-103567	74O-8 Tantato	Ni - Cu - Co	47 537	0.79% Ni	1.17% Ni & 0.30% Cu over 2.0 m	Differentiated mafic (norite) intrusion	Consolidated Pine Channel Gold Corp. Dale Hoffman (604) 684-5118
Rea Lake	S-103569	74P-5 Tantato	Ni - Cu - Co	63 867 000	0.1% Ni 0.1% Cu		Differentiated mafic (norite) intrusion	Consolidated Pine Channel Gold Corp. Dale Hoffman (604) 684-5118
Gochager Lake Ivy	S-97963 S-97970 S-100209 S-100221 S-100226 S-100227	73P-15 La Ronge/ Crew	Ni - Co - Cu	1 542 240	0.74% Ni-Cu combined		Disseminated massive sulphide in ultramafic intrusion	Margaret Ducommun (306) 425-3081
Howard Lake	ML 5180	73P-5 La Ronge	Ni - Cu - Co			Drill hole 2.44% Ni, 0.49% Cu & 0.09% Co over 20 ft	Differentiated mafic intrusion	Walter Shupe (306) 425-2182

Base Metal Properties

Name	Disposition Number	NTS Block & Domain	Commodity	Tonnage (t)	Grade	Assays	Mineralization Type	Contact
Brabant/Peg/ McKenzie	ML 5054	64D-4 La Ronge	Zn - Cu - Pb	4 860 000	5.19% Zn 0.57% Cu 0.28% Pb 22.6 g/t Ag 0.22 g/t Au		Sediment-hosted stratiform base metal deposit	Boart Longyear Inc. Bill White (306) 931-4466
Compulsion River	S-101742 to S-101749 S-101471 S-101472 S-104828 CBS 7829 CBS 7830	64E-12 Wollaston	Pb - Zn			Over 45 m anomalous Zn in several drill holes. A 0.5 x 7 km till geochem anomaly	Sedex	Far West Mining Ltd. Pat Varas (604) 602-9144
George Lake Zinc - Lead Deposit	S-105411 S-105412 S-105626	64E-5 Wollaston	Zn - Pb	13 368 249	2.76% Zn 0.36% Pb		Sediment-hosted base metal deposit	Petro Plus Inc. Randy Studer (306) 425-3350